

JAYPEE BELA PLANT

JAL/EC/ES/A-19/2014-15/

**JAIPRAKASH
ASSOCIATES LIMITED**

September 9, 2014 Environment Division

**The Member Secretary
MP Pollution Control Board
Paryavaran Parisar
E-5, Arera Colony
Bhopal (MP)-462016**

**Sub: Environment Statement under the Environment (Protection) Act, 1986, for
Jaypee Bela Plant (A Unit of Jaiprakash Associates Limited) Jaypeepuram,
Rewa (MP)**

Dear Sir,

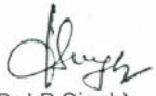
We are pleased to enclose herewith Environment Statement for the year 2013-14 for
our following plants,

- Jaypee Bela Plant
- Captive Power Plant – II (25 MW)
- DG Set (Jaypee Bela Plant)
- Jaypee Lime Stone Mine

This is for your kind information and needful please.

Thanking you.

Yours Faithfully,
(For Jaypee Bela Plant)


(Dr LB Singh)
Sr. V.P. (P & QC)

Encl: As above

CC: The Regional Officer
MP Pollution Control Board
HIG: 190-191, Nehru Nagar
Rewa (MP)



JAYPEE
GROUP

ISO 9001
ISO 14001
ONAS 18001
BUREAU VERITAS
Certification



Works JBP : Post Office : Jaypee Puram - 486 450, District Rewa (M.P.) India
Ph. : +91 (7662) 229244 to 229284 Fax : +91 (7662) 229245

Head Office: 'JA House', 63, Basant Lok, Vasant Vihar, New Delhi - 110 057 (India)
Ph. : +91 (11) 26141540, 26147411 Fax : +91 (11) 26145389, 26143591

Regd. Office: Sector-128, Noida - 201 304, Uttar Pradesh (India)

Jaypee Lime Stone Mine
Jaypee Bela Plant
(A Unit of Jaiprakash Associates Limited)

Introduction: Jaypee Group is the 3rd largest cement producer in the country. The group cement facilities are located in various states viz. M.P., U.P., H.P., A.P etc. Oldest plants of the Group are in Satna Cluster (M.P.), which is the highest cement production capacity at a single location.

The group produces Ordinary Portland Cement and Portland Pozzolona Cement under brand name “Jaypee Cement”. Rewa cement complex has three modern, computerized process control cement plants namely “Jaypee Rewa Cement Plant (02 Nos. Kiln)” & “Jaypee Bela Cement Plant (01 No. Kiln)” with an aggregate production capacity of 6.0 MTPA cement.

The group is committed towards the safety and health of employees and the public. The motto of the group is '**Work for Safe, Healthy, Clean & Green Environment**'. Both Jaypee Rewa & Jaypee Bela Plants of Jaiprakash Associates Limited at Jaypee Nagar and Jaypeepuram respectively, were awarded Five Star Rating & subsequently prestigious Sword of Honour by the British Safety Council, U.K. for safety and health management system.

Jaypee Lime Stone Mine is located at about 3 km from Bela village (situated on National Highway no.7) on Satna Rewa road at a distance of 40 km from Satna and 12 km from Rewa. Geographically, it is located at latitude 24⁰30'20" to 24⁰31'49" North and longitude 81⁰9'15" to 81⁰11'19" East. The area covered under mining lease is comprised of 519.82Ha. area spreaded over the village of Baijnath, Hinoti, Sonra, Khamaria, Narora Madhyepur in Huzur Tehsil of Rewa district of Madhya Pradesh.

Jaypee Lime Stone Mine came into operation in the year 1996. Present production capacity of mine is 4.0 million Tons Limestone per annum.

“FORM – V”

(See rule 14)

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING THE
31ST MARCH 2014

PART – A

(I)	Name & Address of the Owner / Occupier of the Industry Operation or Process	Jaypee Lime Stone Mine (A Unit of Jaiprakash Associates Limited) Jaypeepuram, - 486 450 Rewa (M.P.)
(II)	Industry Category Primary (STC CODE) Secondary (SIC CODE)	Captive Limestone Open Cast Mechanized Mine.
(III)	Production Capacity	4.0 million TPA
(IV)	Year of Establishment	August, 1996
(V)	Date of last Environmental Statement Submitted	24 th September, 2013

PART – B

Water & Raw Material Consumption

A. Water consumption - m³/ day

(i)	Process (Spraying)	-	62.40
	Cooling	-	Nil
	Domestic	-	0.5

(ii) Consumption per unit of production

Name of the product	Process water consumption per unit of product output (m ³ / MT)	
	During the previous financial year (2012-13)	During the current financial year (2013-14)
Limestone	0.0239	0.0096

B. Raw material consumption

Name of the raw material	Name of product	Consumption of raw material per unit Product output (MT/MT of Limestone)	
		During the previous Financial year (2012-13)	During the current Financial year (2013-14)
HSD	Limestone	0.00137	0.00121
Explosive		0.000329	0.000223

Total Limestone Production (MT)

Name of product	During previous financial year (2012-13)	During current financial year (2013-14)
Limestone	2290144	2364640

PART - C

Pollutant Discharged To Environment / Unit of Output

S. No.	Pollutants	Quantity of pollutants discharged (Mass / day)	Concentrations of pollutants in discharged (Mass / Volume)	Percentage of variation from prescribed standard with reasons
(a)	Water			
(i)	Domestic	Zero discharge is maintained. Treated domestic water is being used in horticulture and plant process		
(ii)	Industrial	Zero discharge		
(b)	Air			
		Ambient Air Quality Monitoring report of core zone & buffer zone are attached as Annexure -1		

PART – D

Hazardous Wastes

(As specified under Hazardous waste Management, Handling and Transboundary Movement Rules, 2008)

Hazardous Waste		Total Quantity (Kg)			
		During the previous financial year(2012-13)		During the current financial year(2013-14)	
		Used oil	Waste oil	Used oil	Waste oil
(a)	From Process	4158	Nil	9072	Nil
(b)	From pollution control facilities.	Nil		Nil	

PART – E

Solid Wastes

Solid waste		Total quantity	
		During the previous financial year	During the current financial year
(a)	From process	Not applicable	Not applicable
(b)	From pollution control facilities	Not applicable	Not applicable
(C)	(i) Qty. recycled or reused within the unit.	Nil	Nil
	(ii) Sold	Nil	Nil
	(iii) Disposed	Nil	Nil

PART – F

PLEASE SPECIFY THE CHARACTERISATIONS (IN TERMS OF COMPOSITION AND QUANTUM) OF HAZARDOUS AS WELL AS SOLID WASTES AND INDICATE DISPOSAL PRACTICE ADOPTED FOR BOTH THESE CATEGORIES OF WASTES

Hazardous waste: All the used oil, waste oil, burnt grease generated from the different sections of plant is being collected in empty drums and barrels and then sent to store department for proper handling and storage. The store department stored all collected hazardous waste at specified location as per Hazardous Waste Management, Handling & Transboundary Movement Rule, 2008 from where the stored hazardous waste is being sold out to authorized recyclers.

Characteristic:

1. Used Oil

S.No.	Parameters	Units	Analysis	Limit	Quantity in (Kg)
1	Arsenic	ppm	<1	5.00 Max	9072
2	Cadmium+ Chromium+ Nickel	ppm	<1	500.00 Max	
3	Lead	ppm	<1	100.00 Max	
4	PAH	%	ND	6.00 Max	
5	PCB	---	BDL	_____	

PART – G

IMPACT OF THE POLLUTION ABATEMENT MEASURES TAKEN ON CONSERVATION OF NATURAL RESOURCES AND ON THE COST OF PRODUCTION

Following measures have been adopted for abatement of pollution, conservation of natural resources:-

1. Wet drilling

We are very conscious for the fugitive emission during drilling operation; we have adopted wet drilling practices for drilling of limestone in mines. The water droplets are injected in the bore simultaneously drilling is being done. System is very effective & no emission is observed. Also we have provided all PPEs to the operator.



Photo: Wet drilling

2. Controlled blasting

Blasting is being done in controlled way by adoption of relay-delay detonators & with the help of ANFO (Ammonium Nitrite & Fuel Oil) for control of noise pollution. After blasting, water spray is being done for reduction of fugitive dust emission. During blasting, all surrounding area & road junctions are kept in a no-means land way.

3. Loading activity

Loading of blasted limestone in wet condition is being done with the help of sufficient capacity 4.2 m³ shovel / loader & transported by the high capacity 32 tonner dumper/ Hyva. The high capacity of shovel & dumper reduces the fugitive emission during material handling.



Photo: L/s Loading activity

4. Dust suppression on haulage roads:

We have dedicated water tankers of capacity 12 m³ for mines haulage road water spraying. The rain water collected in mines reservoir through the garland canal is being used for mines haulage road water spraying. The haulage roads are always in wet condition so fugitive emission is minimal.



Photo: Haulage road water spraying

5. Water conservation

We have 4.50 km garland canal for rain water harvesting from colony and plant premises. This harvested rain water is stored in mine sumps. We have eight mine sumps to stored rain water collected in these sumps and used for cement manufacturing process and cooling purpose.



Photo: Water reservoir

PART – H

ADDITIONAL MEASURES / INVESTMENT PROPOSALS FOR ENVIRONMENTAL PROTECTION INCLUDING ABATEMENT POLLUTION, PREVENTION OF POLLUTION

Additional measures taken for environmental protection are as under.

Plantation in and around the Mine area

We have a dedicated team of skilled horticulturists for the a forestation and greenery development program at our plant and mines under the supervision of senior experienced person. In addition to the horticulture department, environment Cell also does the plantation activity.

Particulars	Plantation during the year 2012-13	Plantation during the year 2013-14	Plantation upto 31.03.2014
No. of Saplings Planted	11000	10400	177350



Photo: Plantation at Jaypee Limestone Mines

PART - I

OTHER PARTICULARS FOR IMPROVING THE QUALITY OF THE ENVIRONMENT

- 1- In the year 2013-14, about 1497162 Cum OB was generated and about 4.73 ha. area was reclaimed by backfilling.
- 2- In the financial year 2013-14, almost 8.38 % Shale (216416 MT) was used for the cement manufacturing with proper raw mix design.

For Jaypee Lime Stone Mine,
(A Unit of Jaiprakash Associates Limited)
Jaypee Puram, REWA (M.P.)

(Dr LB Singh)
Sr. Vice President (P & QC)

JAYPEE LIME STONE MINE
(A Unit of Jaiprakash Associates Limited)
AMBIENT AIR QUALITY MONITORING REPORT

Period : April , 2013 - March , 2014

LOCATION : NEAR DRILLING SITE						
Month	Particulars	PM10 ($\mu\text{g}/\text{m}^3$)	PM2.5 ($\mu\text{g}/\text{m}^3$)	SO ₂ ($\mu\text{g}/\text{m}^3$)	NO _x ($\mu\text{g}/\text{m}^3$)	CO ($\mu\text{g}/\text{m}^3$)
April	Monthly Average	48.0	33.0	5.9	14.1	146.9
May		40.0	24.0	6.0	14.2	142.1
June		32.0	19.0	7.0	13.2	131.6
July		38.7	20.4	7.2	13.8	113.5
August		58.2	30.0	8.5	16.0	160.6
September		28.0	12.1	6.4	15.0	137.6
October		33.4	18.5	5.7	13.0	139.8
November		34.5	12.0	6.6	11.4	147.6
December		53.8	18.2	7.3	12.3	190.6
January		47.0	17.8	6.7	14.2	169.3
February		47.5	21.6	6.7	14.5	160.8
March		48.3	21.4	7.1	12.7	141.0
Minimum		28.0	12.0	5.7	11.4	113.5
Maximum		58.2	33.0	8.5	16.0	190.6
Average		42.5	20.7	6.8	13.7	148.4
Std Dev		9.4	6.2	0.7	1.3	19.8
LOCATION : NEAR L/S LOADING SITE						
April	Monthly Average	44.0	35.0	7.7	13.4	150.3
May		44.0	34.0	7.7	13.4	150.3
June		32.0	19.0	7.1	13.1	131.6
July		38.0	20.8	6.9	14.2	111.3
August		54.8	26.3	8.6	16.5	153.3
September		30.9	11.6	6.3	12.3	148.9
October		32.9	16.6	6.0	13.0	139.8
November		30.1	11.1	6.2	10.3	138.6
December		50.7	18.6	7.2	13.8	193.6
January		47.8	17.0	6.6	13.8	180.8
February		43.2	21.9	6.4	13.7	160.5
March		52.1	26.0	7.4	13.4	138.4
Minimum		30.1	11.1	6.0	10.3	111.3
Maximum		54.8	35.0	8.6	16.5	193.6
Average		41.7	21.5	7.0	13.4	149.8
Std Dev		8.8	7.7	0.8	1.4	21.7
LOCATION : NEAR HAULAGE ROAD						
April	Monthly Average	47.0	33.0	6.6	14.7	151.9
May		47.0	33.0	6.6	14.7	151.9
June		32.0	19.0	7.3	13.4	132.0
July		40.8	23.2	6.9	14.7	109.6
August		57.2	27.2	8.2	15.9	152.1
September		27.8	11.9	6.2	12.5	150.0
October		34.1	17.6	6.1	12.5	137.4
November		30.4	11.1	6.3	11.0	141.6
December		51.4	21.3	7.4	12.4	180.0
January		48.4	16.3	7.0	14.4	145.8
February		44.7	22.9	6.8	13.1	167.5
March		47.6	23.2	6.8	14.4	144.3
Minimum		27.8	11.1	6.1	11.0	109.6
Maximum		57.2	33.0	8.2	15.9	180.0
Average		42.4	21.6	6.9	13.6	147.0
Std Dev		9.3	7.1	0.6	1.4	17.4
LOCATION : NEAR WATER PUMP STATION						
April	Monthly Average	47.0	34.0	7.1	12.9	150.9
May		42.0	25.0	6.2	15.2	144.7
June		32.0	19.0	6.7	13.8	128.6
July		39.7	20.5	7.1	15.0	114.1
August		56.0	25.4	7.3	15.2	157.9
September		28.5	11.5	6.4	14.2	146.3
October		31.5	18.3	6.2	12.7	140.8
November		29.5	13.0	6.6	10.2	144.6
December		49.6	18.7	7.6	12.1	189.8
January		47.7	17.7	7.0	13.6	177.3
February		44.3	23.8	7.1	13.1	163.9
March		52.8	23.9	6.5	14.3	143.1
Minimum		28.5	11.5	6.2	10.2	114.1
Maximum		56.0	34.0	7.6	15.2	189.8
Average		41.7	20.9	6.8	13.5	150.1
Std Dev		9.5	6.0	0.5	1.5	20.3

JAYPEE LIME STONE MINE
(A Unit of Jaiprakash Associates Limited)
AMBIENT AIR QUALITY MONITORING REPORT

Period : April , 2013 - March , 2014

BUFFER ZONE

LOCATION : NEAR MADHEYAPUR

Month	Particulars	PM10 (µg/m ³)	PM2.5 (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	CO (µg/m ³)
April	Monthly Average	42.0	24.0	6.1	11.3	136.4
May		49.0	29.0	7.8	16.7	127.7
June		49.0	29.0	7.8	16.7	127.7
July		28.1	15.2	6.6	12.3	134.0
August		35.4	18.8	6.8	11.1	128.3
September		25.4	7.9	6.8	12.1	124.9
October		22.7	8.7	5.9	10.4	130.5
November		21.4	10.5	6.5	11.9	144.5
December		29.4	12.0	5.8	11.8	147.0
January		28.6	9.7	6.6	13.3	155.3
February		43.9	17.7	6.5	11.6	156.5
March		39.8	17.1	6.4	12.7	141.4
Minimum		21.4	7.9	5.8	10.4	124.9
Maximum		49.0	29.0	7.8	16.7	156.5
Average		34.5	16.6	6.6	12.6	137.8
Std Dev		10.0	7.5	0.6	2.0	11.0

LOCATION : NEAR BHOLGARH

April	Monthly Average	41.0	24.0	5.9	11.3	134.0
May		47.0	28.0	7.9	16.0	128.3
June		47.0	28.0	7.9	16.0	128.3
July		29.3	14.7	6.1	12.6	133.1
August		35.2	15.4	7.7	11.7	126.6
September		25.3	9.8	6.6	12.6	121.3
October		25.2	9.3	6.3	10.9	138.0
November		21.5	11.9	6.6	12.3	151.6
December		28.5	12.4	7.1	12.3	153.3
January		31.4	10.1	6.7	13.7	144.1
February		39.6	17.7	7.1	11.3	143.6
March		38.2	17.2	6.9	13.1	139.4
Minimum		21.5	9.3	5.9	10.9	121.3
Maximum		47.0	28.0	7.9	16.0	153.3
Average		34.1	16.5	6.9	12.8	136.8
Std Dev		8.5	6.8	0.7	1.7	10.0

LOCATION : NEAR KATHAR

April	Monthly Average	39.0	25.0	5.8	9.9	140.8
May		49.0	28.0	7.8	16.0	127.3
June		49.0	28.0	7.8	16.0	127.3
July		27.6	14.4	6.0	12.7	131.2
August		35.9	17.4	6.6	12.3	123.8
September		26.4	9.8	7.0	12.5	122.9
October		27.4	8.9	6.0	10.6	138.6
November		21.5	11.0	6.2	11.6	150.6
December		26.4	12.6	6.6	11.8	152.0
January		24.6	10.8	6.7	13.0	143.6
February		42.1	16.1	7.3	11.6	155.1
March		40.7	16.7	6.5	12.3	143.8
Minimum		21.5	8.9	5.8	9.9	122.9
Maximum		49.0	28.0	7.8	16.0	155.1
Average		34.1	16.6	6.7	12.5	138.1
Std Dev		9.7	6.9	0.7	1.8	11.4

LOCATION : NEAR NARAURA

April	Monthly Average	40.0	28.0	6.5	11.2	147.4
May		47.0	27.0	8.3	16.3	129.4
June		47.0	27.0	8.3	16.3	129.4
July		27.3	15.6	6.6	13.6	132.8
August		35.0	18.7	6.7	11.1	123.8
September		24.4	8.8	6.9	13.0	122.6
October		27.4	8.3	6.0	11.0	132.4
November		21.6	11.5	6.8	11.9	153.8
December		30.3	11.8	6.9	12.0	157.6
January		28.9	13.3	6.7	13.2	137.4
February		42.0	18.6	7.1	11.4	151.9
March		38.4	15.7	6.6	11.7	141.3
Minimum		21.6	8.3	6.0	11.0	122.6
Maximum		47.0	28.0	8.3	16.3	157.6
Average		34.1	17.0	6.9	12.7	138.3
Std Dev		8.7	7.0	0.7	1.9	11.9